

Is IPTV.1 a waste of Internet bandwidth?

Andrew Odlyzko
Digital Technology Center
University of Minnesota
<http://www.dtc.umn.edu/~odlyzko>

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Is IPTV.1 a waste of Internet bandwidth?

YES

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Is IPTV.1 a waste of Internet bandwidth?

YES, but it doesn't matter

- ◆ waste enables innovation
- ◆ winning feature of the Internet has always been flexibility, not low cost

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Conclusions from presentation deck at 2000 CITI conference:

- ◆ TV will have little impact on Internet backbones
- ◆ Internet will have a large impact on TV

<http://www.dtc.umn.edu/~odlyzko/doc/tv.internet.pdf>

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More precisely:

- ◆ consumers change their habits slowly
 - ◆ Internet capacity and traffic are growing rapidly
 - ◆ magnetic storage capacity is growing rapidly
 - ◆ displays are improving slowly
- ⇒
- ◆ local storage and replay (a la Napster) likely to dominate
 - ◆ streaming real time multimedia a minor factor
 - ◆ Internet delivery likely to facilitate evolution of TV (HDTV, interactive TV, ...)

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Misleading myth of "Internet time":

Build it and they will come

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Misleading myth of "Internet time":

~~Build it and they will come~~

Build it and they may come,
but always in their own sweet time

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Internet traffic per capita (as of mid-2005):

Australia	0.3 GB/month
United States	1.2
Japan	1.2
S. Korea	7
Hong Kong	9

growth rates: usually about a doubling each year
(but U.S. is now down to about 60% a year)

http://firstmonday.org/issues/issue3_10/coffman

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Current Internet costs too high for TV:

- ◆ Internet transit prices \$20-30 Mbps/month
- ◆ but they are declining (and can use local distribution, ...)
- ◆ already can afford a lot of experimentation

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Rates of change:

- ◆ technology: fast
- ◆ consumer habits: slow
- ◆ industry dogmas: slowest

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Misleading dogma of streaming video:

- ◆ file transfers much more natural
- ◆ predicted long ago
- ◆ faster-than-real-time file transfers predicted long ago
- ◆ faster-than-real-time file transfers already dominate (P2P music in US, P2P video in Korea)
- ◆ yet industry is still mesmerized by streaming video
- ◆ Internet's flexibility is allowing natural evolution to take place without the industry noticing or understanding what's happening

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Faster-than-real-time video file transfers:

- ◆ cater to human impatience
- ◆ enable transfer to portable devices
- ◆ enable far simpler networks

...

AND ALREADY DOMINATE

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Conclusions:

- ◆ **IPTV.1 (as well as IPTV.2 as usually conceived) IS a waste of Internet bandwidth**
- ◆ **waste enables innovation**
- ◆ **flexibility of the Internet is enabling innovation that bypasses misleading industry dogmas**

further data, arguments, and speculations at
<http://www.dtc.umn.edu/~odlyzko>